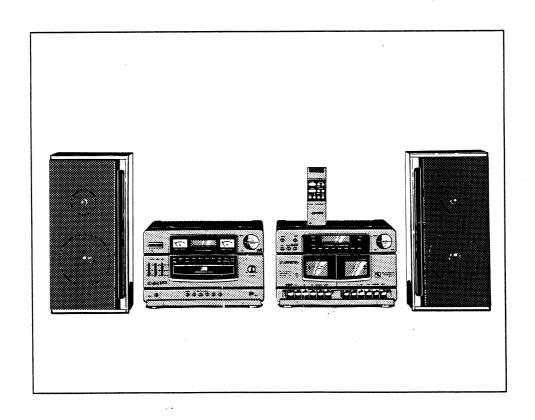


## SERVICE MANUAL

**MODEL: PP-2280** 



#### GENERAL SPECIFICATIONS ####  # POWER SOURCE				
# POWER SOURCE				
######################################			**** GENERAL SPECIFICATIONS ****	MODEL NO.: RG-2280
# SPEAKER IMPEDANCE		*	POWER SOURCE	AC 220V 50
# SPEARER IMPEDANCE  # POWER CONSUMPTION		*	OUTPUT POWER	10W/CH. THD.1
# FREQUENCY RESPONSE		,, ,,	SPEAKER IMPEDANCE	8 0;
# REMOTE CONTROL		×	POWER CONSUMPTION	80W M.
# UNIT ONE ASS'Y		ž	FREQUENCY RESPONSE	30Hz18K
# UNIT TWO ASS'Y		*	REMOTE CONTROL	10 FUNCTI
######################################	•	÷.	UNIT ONE ASS'Y	3BAND EQ + CD + AMP. SYST
# UNIT DIMENSIONS (WxHxD) mm (280x130x270)  # SPEAKER DIMENSIONS (WxHxD) mm (360x180x135)  #### RADIO SECTION SPECIFICATIONS ####  # TUNING RANGE (DIGITAL) FM. 87.5108 MW 5221620K LW. 153281 K  # INTERMEDIATE FREQUENCY FM. 10.7M AM. 450KH  # USABLE SENSITIVITY FM: 200V AT 30db S LW: 1.58 mV AM: 1000 uV 20db S LW: 1.58 mV AM: 60Hz2.5 K  # AUDIO FIDELITY(-6db) AM: 60Hz2.5 K  # FM STEREO SEPARATION		, b	UNIT TWO ASS'Y	DIGITAL TUNER FM/MW/LW
#### RADIO SECTION SPECIFICATIONS ####  # TUNING RANGE (DIGITAL)		*	UNIT DIMENSIONS (WxHxD)mm	(280x180x270):
# TUNING RANGE (DIGITAL)  # TUNING RANGE (DIGITAL)  # # 5221620K  LW 153281 K  # INTERMEDIATE FREQUENCY  # AM. 450KH  # USABLE SENSITIVITY  # AUDIO FIDELITY(-6db)  # AUDIO FIDELITY(-6db)  # FM STEREO SEPARATION  # ### TAPE SECTION SPECIFICATIONS ****  # TAPE SPEED  # **** TAPE SPEED  # **** TAPE SPEED  # OW & FLUTTER (WTD)  # One than 0.3  # SIGNAL TO NOISE RATIO  # CROSS TALK  # AUDIO RESPONSE  # AUDIO RESPONSE  # AUDIO RESPONSE  # ***** CD SECTION SEPCIFICATION ****		*	SPEAKER DIMENSIONS (WxHxD) mm	(360x180x135)
#### CD SECTION SEPCIFICATION ****			**** RADIO SECTION SPECIFICATIONS ****	
#### CD SECTION SEPCIFICATION ####  # INTERMEDIATE FREQUENCY		*	TUNING RANGE (DIGITAL)	FM. 87.5108M
#### CD SECTION SEPCIFICATION ****  # USABLE SENSITIVITY			· · · · · · · · · · · · · · · · · · ·	IW 153281 K
#### CD SECTION SEPCIFICATION ####  #### 1000uV 20db S LW: 1.58mV				AM. 450KH
# AUDIO FIDELITY (-6db)	-	*	USABLE SENSITIVITY	MW: 1000uV 20db S
# FM STEREO SEPARATION		*	AUDIO FIDELITY(-6db)	AM: 60Hz2.5K
#### TAPE SECTION SPECIFICATIONS ****  # TAPE SPEED		×	FM STEREO SEPARATION	
# TAPE SPEED			**** TAPE SECTION SPECIFICATIONS ****	, <b>?</b>
# WOW & FLUTTER (WTD)		'n	TAPE SPEED	4.75cm/s
* SIGNAL TO NOISE RATIO				
* SEPARATION	, .	*	SIGNAL TO NOISE RATIO	More than 40d
* AUDIO RESPONSE		*	SEPARATION	More than 35d
* AUDIO RESPONSE	-	šŕ	CROSS TALK	More than 35d
**** CD SECTION SEPCIFICATION ****	٠.	*	AUDIO RESPONSE	60Hz10K
. Voro than 10d				
		÷.		More than 40d
* SIGNAL TO NOISE More than 50d		*	SIGNAL TO NOISE	More than 50d
* DISTORTION Less than 2		, ,		
		-		

## ALIGNMENT PROCEDURES

1. OUTH 2. IF 3 3. 0-12 4. FM 5 5. DIS 6. OSC	3. O-120MHz SIGNAL GENERATOR 4. FM STEREO SIGNAL GENERATOR 5. DISTORTION METER 6. OSCILLOSCOPE 7. DIGITAL DC VOLTMETER GHEST SENSITIVITY OF OUTPUT INDNCATOR 2. VOLUME CONTROL AT STD. POSITION. 3. AM STD. MOD. IS 400Hz AT 30% (AMPLI. M. 4. FM STD MOD. IS 1KHz AT 22.5K (FREQ. M. 5. CONNECT 8 OHM LOAD ACROSS SP. JACK.						
TUNER SECTION SETTING PRESS TUNER & SOUCE BUTTON. PUSH BAND BUTTON SELECTOR LW/MW/FM BAND							
STEP	INSTRUMENT CONNECTION	GEN. FREQ.	RECEP FREQ.	O/P INDICATOR CONNECTION	ADJUSTMENT ADJUST FOR		
AM IF							
1	IF SWEEP SG. TO IC 101(PIN 1)	450KHz	522KHŻ	IF SWEEP SCOPE C108 (-) & GND.	T101 MAX.		
MW TUNI	NG VOLTAGE				,		
2	NO SIGNAL		1620K	DC VOLTMETER Q201,(C) & GND.	L102 8 V +/-0.10V		
3	NO SIGNAL		522K	SAME AS STEP 2	CHECK 1.8V		
4	REPEAT STEP 2	AND STE	P 3 ON	2 TIMES	CHECKING		
LW TUNI	NG VOLTAGE		,		Annual Control of the		
5	NO SIGNAL .		281K	SAME AS STEP 2	L1:01 6.5V ::+/-0.1V		
6	NO SIGNAL		153K	SAME AS STEP 2	CHECK 1.8V		
7	REPEAT STEP 5	AND STE	P 6 ON	2 TIMES	CHECKING		
LW TRACKINK							
8	AM SIGNAL GEN. LOOP ANT (60)CM	164K	164K	SCOPE & VTVM C123,124 (-) & GND.	L103 MAX.		
9	SAME AS STEP 8	272K	272K	SAME AS STEP 8	TC101, MAX.		
10	REPEAT STEP 8	AND STE		3 TIMES	CHECKING		
MW TRACKING							
11	SAME AS STEP 8	603K	603K	SAME AS STEP 8 .	L103 MAX.		
12	SAME AS STEP 8	1404K	1404K	SAME AS STEP 8	TC102, MAX.		
13	REPEAT STEP 11	AND STEP	12 ON	3 TIMES	CHECKING		

			•				
14	IF SWEEP SG.TO ICOO1 (PIN 4)	10.7M	87.5M	SAME AS	STEP 2	TOO1 GOOD (S) WAVE	
FM TRACKING							
15	FM SIGNAL GEN. TO P001(+)002(-	87.9M	87.9M	SAME AS	STEP 8	LOO2 MAX.	
16	SAME AS STEP15	105.9%	105.9M	SAME AS	STEP 8	TCOO1, MAX.	
17	REPEAT STEP 16	AND STEP	17 ON	3 TIMES		CHECKING	
FM TUN	ING VOLTAGE	. •					
18	NO SIGNAL	,	108M	SAME AS	STEP 2	L003 6 V +7-0.05V	

TAPE SECTION

19

20

SETTING

87.5

PRESS TAPE & SOUCE BUTTON AND PRESS PLAY BUTTON....

ON 2 TIMES

SAME AS STEP 2

CHECK 2.1V

CHECKING

NO SIGNAL

INSTRUMENT REQUIRED

1. DUAL TRACE OSCILLOSCPE.

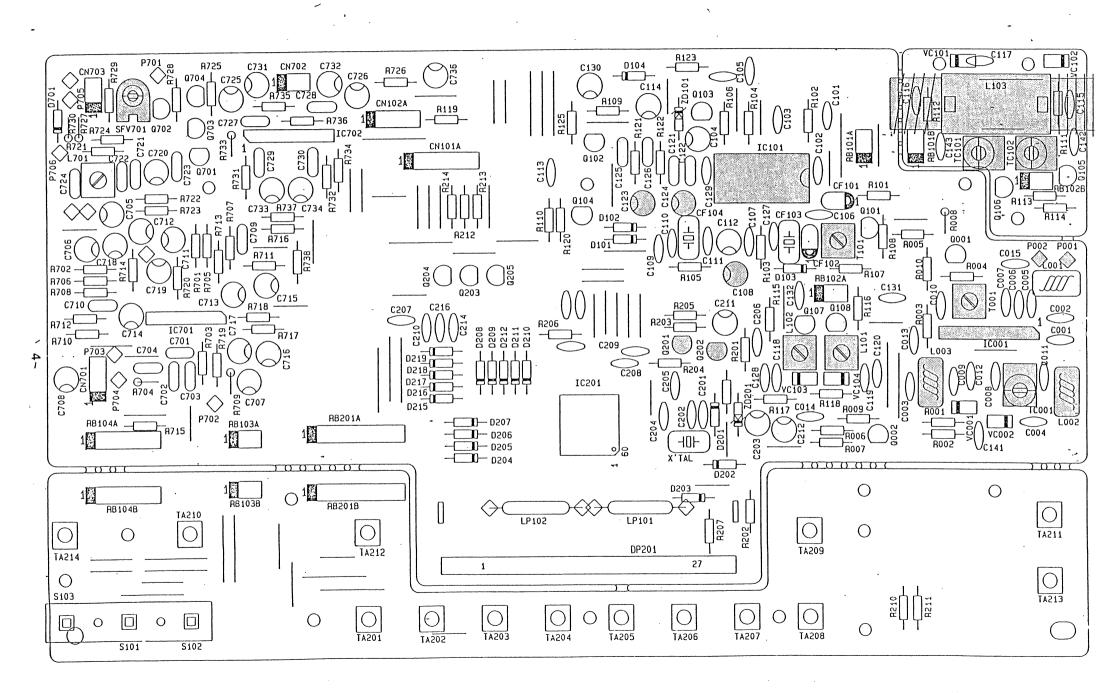
2. DUAL TRACE AC MILLIVOLT METER.

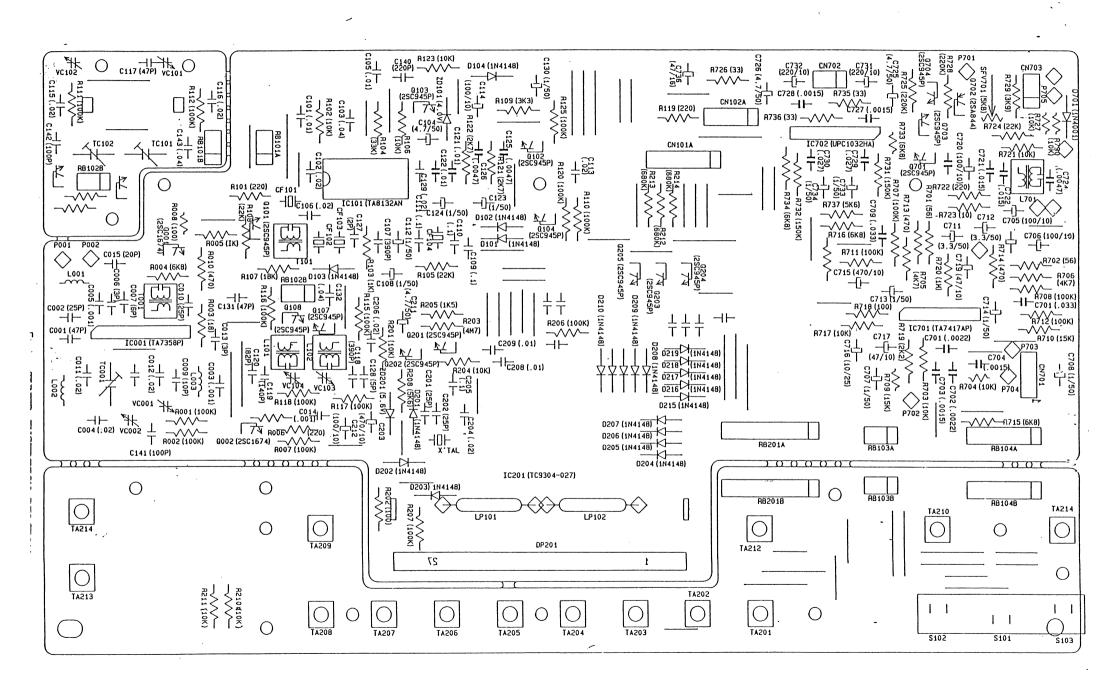
REPEAT STEP 18 AND STEP 19

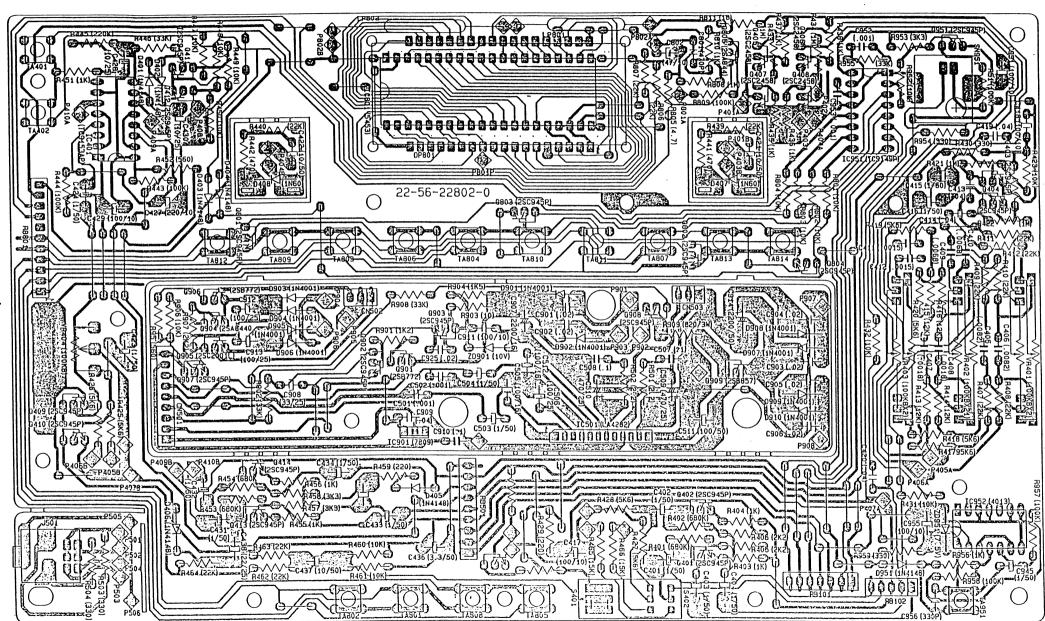
3. FREQUENCY COUNTER.

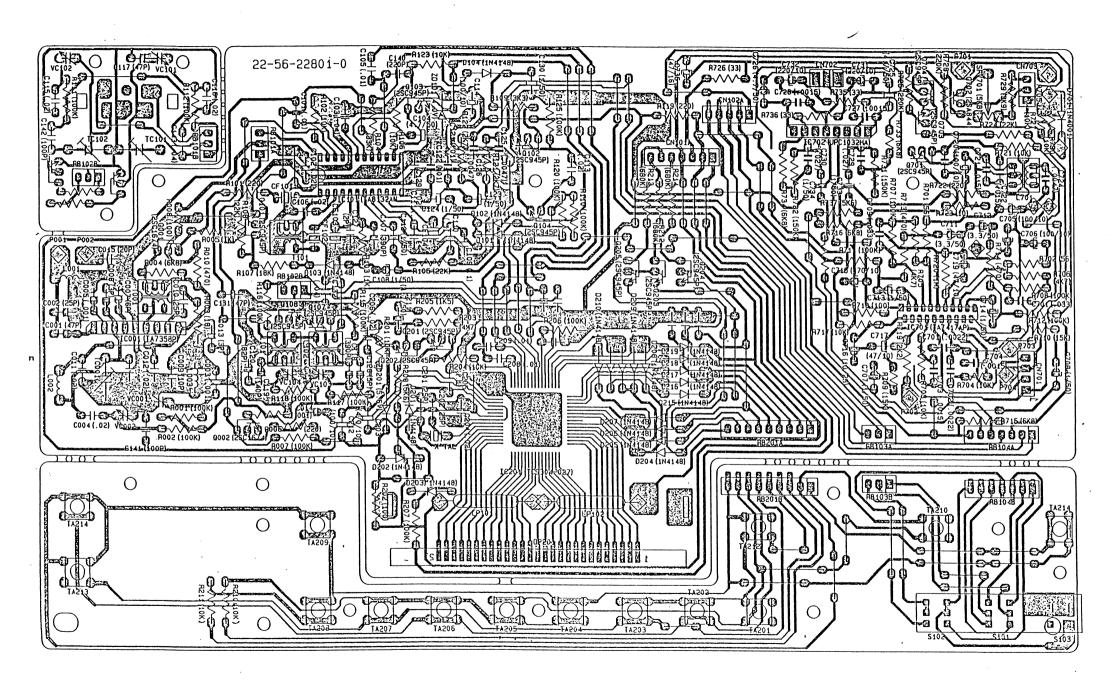
4. LOUDSPEAKER 8 OHM

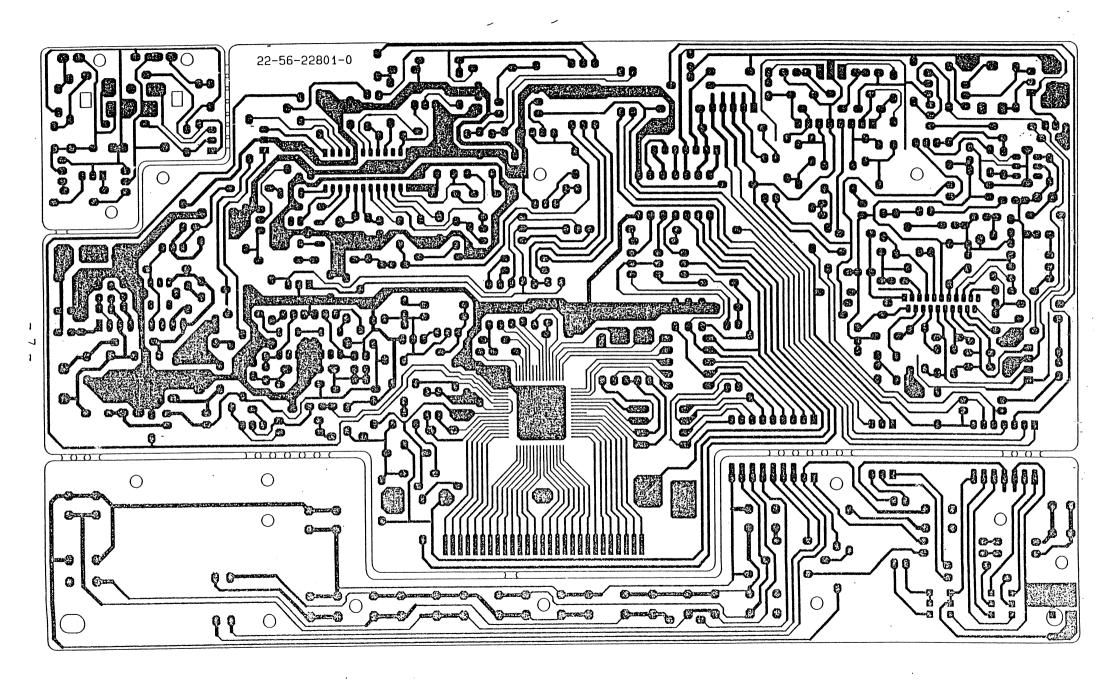
STEP		MEASURING INSTRUMENT ARRANGEMENT	TEST TAPE	ADJUSTMENT	ADJUST FOR
1	AZIMUTH PHASE	TAKE OUT THE SIGNAL FROM LOUDSPEAKER LOAD	B-113N 8 KHz	SCREW AT LEFT SIDE OF HEAD	ADJUST TO MAX.  O/P.AND SYNCHRONI  PHASE.
2   TAPE 2   SPEED		NOTE: GRAPHIC EQ. MUST AT CENTER POSITION.	B-111N 3 KHz	SFV701 SEMI-FIX 5KB	3000 +/- 3%

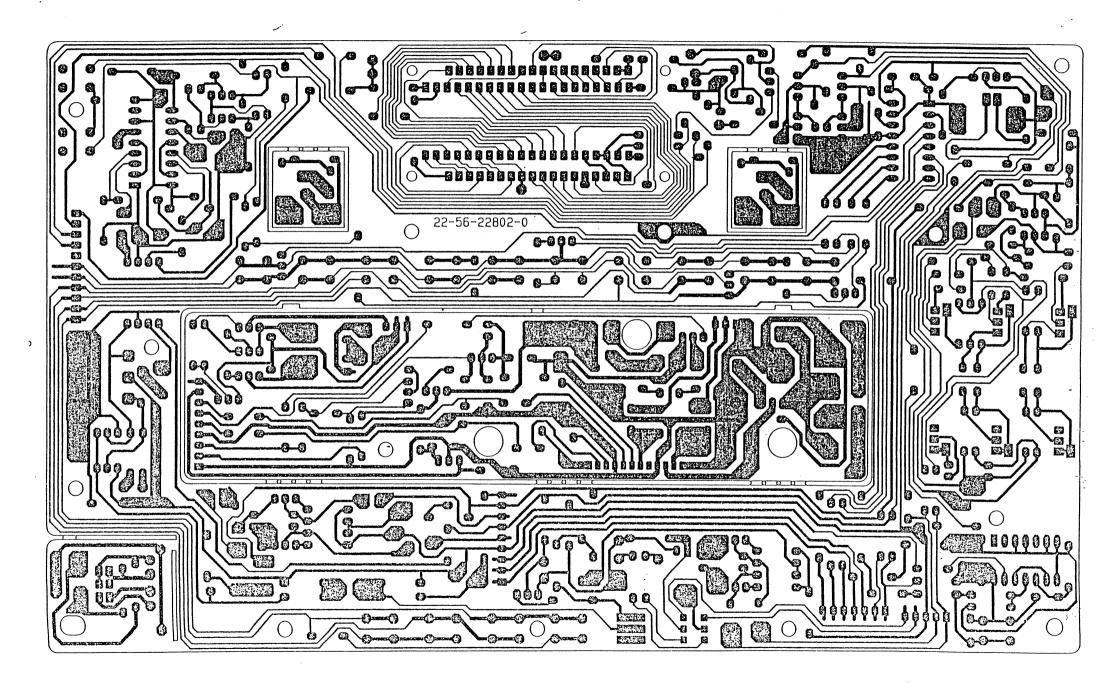


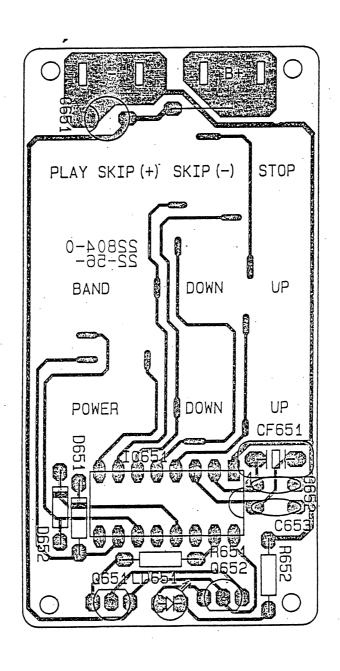


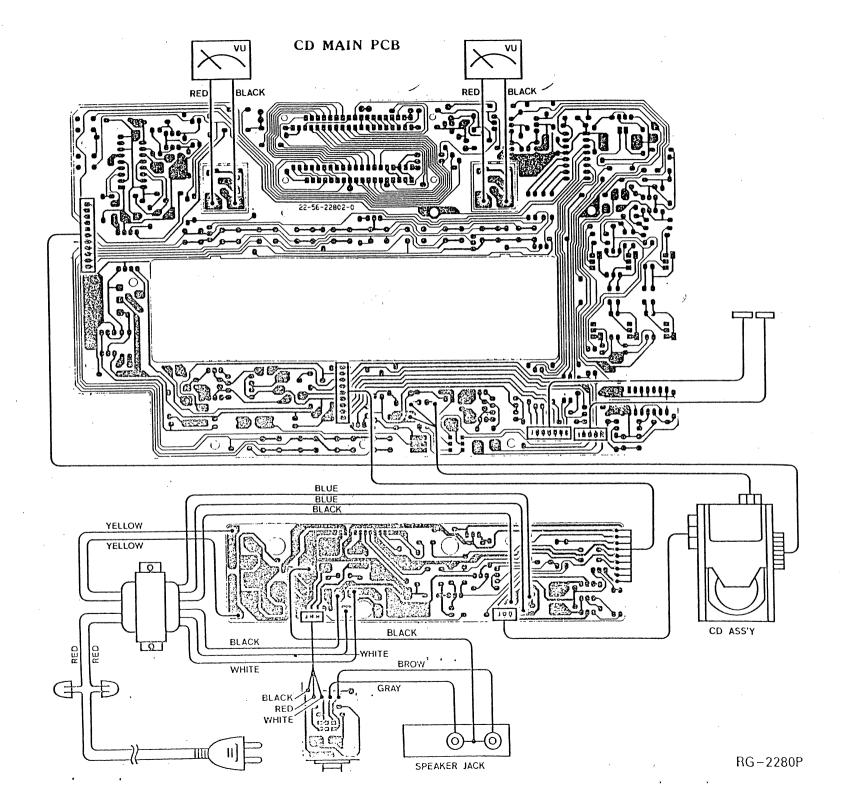












## TUNER MAIN PCB

